

APPENDIX A
CLEAN VERSION OF SUBSTITUTE SEQUENCE LISTING
(Application Serial No. 10/028,075)



amdtc

SEQUENCE LISTING

<110> Nisar A.
Benner, Robert

<120> Gene regulator

<130> 2183-5223US

<140> 10/028,075

<141> 2001-12-21

<150> EP 01203748.7

<151> 2001-10-04

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Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys
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<210> 35

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Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu
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Ser Cys Gln Cys Ala Leu
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<210> 36

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Glu Gly Cys Pro Val Cys Ile Thr Val Asn Thr Thr Ile Cys Ala Gly
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Tyr Cys Pro Thr
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Pro Ser

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Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser
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Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser
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Gly Cys Pro Val Cys Ile Thr Val Asn Thr Thr Ile Cys Ala Gly Tyr
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Cys Pro Thr
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signalling molecule

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His Pro Leu Thr Cys
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<210> 47

<211> 18

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Thr Cys

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signalling molecule

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Thr Cys Asp Asp Pro Arg Phe Gln Asp Ser Ser Ser Ser Lys Ala Pro
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Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly Pro Ser Asp Thr
20 25 30

Pro Ile Leu Pro Gln
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<210> 49

<211> 10

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 <210> 55
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<210> 69
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Pro Ala Leu Pro

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<210> 77

<211> 5

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<210> 78

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5

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5

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<210> 80

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pdb/1GJS/1GJS-A

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<210> 88
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1 5 10 15

Cys

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<211> 4

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 <223> Description of Artificial Sequence: Mm.129320.2

 <400> 108
 Leu Val Gln Lys Val Val Pro Met Leu Pro Arg Leu Leu Cys
 1 5 10

 <210> 109
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Mm.129320.2

 <400> 109
 Leu Pro Arg Leu
 1

 <210> 110
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Mm.129320.2

 <400> 110
 Pro Met Leu Pro
 1

 <210> 111
 <211> 5
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Mm.22430.1

 <400> 111
 Pro Ser Ala Pro Gln
 1 5

 <210> 112
 <211> 11
 <212> PRT
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: P20155

<400> 112

Leu Pro Gly Cys Pro Arg His Phe Asn Pro Val
1 5 10

<210> 113

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rn.2337.1

<400> 113

Leu Val Gly Cys Pro Arg Asp Tyr Asp Pro Val
1 5 10

<210> 114

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rn.2337.1

<400> 114

Leu Val Gly Cys
1

<210> 115

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Hs.297775.1

<400> 115

Pro Gly Cys Pro Arg Gly
1 5

<210> 116

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.1359.1

<400> 116

Leu Pro Gly Cys Pro
1 5

<210> 117
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/O56177/O56177

<400> 117
Val Leu Pro Ala Ala Pro
1 5

<210> 118
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9W234/Q9W234

<400> 118
Leu Ala Gly Thr Ile Pro Ala Thr Pro
1 5

<210> 119
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9W234/Q9W234

<400> 119
Pro Ala Thr Pro
1

<210> 120
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9IYZ3/Q9IYZ3

<400> 120
Gly Leu Leu Pro Cys Leu Pro
1 5

<210> 121
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9PVW5/Q9PVW5

<400> 121
Pro Gly Ala Pro
1

<210> 122
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9PVW5/Q9PVW5

<400> 122
Leu Pro Gln Arg Pro Arg Gly Pro Asn Pro
1 5 10

<210> 123
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9PVW5/Q9PVW5

<400> 123
Pro Arg Gly Pro
1

<210> 124
<211> 4
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Hs.303116.2

<400> 124

Gly Cys Pro Arg
1

<210> 125

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1DU3/1DU3-A

<400> 125

Gly Cys Pro Arg Gly Met
1 5

<210> 126

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1BIO/1BIO

<400> 126

Leu Gln His Val
1

<210> 127

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1FL7/1FL7-B

<400> 127

Val Pro Gly Cys
1

<210> 128

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1HR6/1HR6-A

<400> 128
Cys Pro Arg Gly
1

<210> 129
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1H6/1HR6-A

<400> 129
Leu Lys Gly Cys
1

<210> 130
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 130
Pro Pro Gly Pro
1

<210> 131
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 131
Leu Pro Gly Cys Pro Arg Glu Val
1 5

<210> 132
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 132
Cys Pro Arg Glu
1

<210> 133
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

<400> 133
Met Met Arg Val Leu Gln Ala Val Leu Pro Pro Leu Pro Gln Val Val
 1 5 10 15

Cys

<210> 134
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

<400> 134
Met Met Arg Val
 1

<210> 135
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

<400> 135
Val Leu Pro Pro Leu Pro
 1 5

<210> 136
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

<400> 136
Val Leu Pro Pro Leu Pro Gln

1	5
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<210> 137
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

1	5
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<400> 137
 Ala Val Leu Pro Pro Leu Pro

<210> 138
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

1	5
---	---

<400> 138
 Ala Val Leu Pro Pro Leu Pro Gln

<210> 139
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P07434/CGHB PAPAN

1	5	10	15
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<400> 139
 Met Met Arg Val Leu Gln Ala Val Leu Pro Pro Val Pro Gln Val Val

Cys

<210> 140
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:
 swissnew/P07434/CGHB PAPAN

<400> 140
Leu Gln Ala Gly
1

<210> 141
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 141
Val Leu Pro Pro Val Pro
1 5

<210> 142
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 142
Val Leu Pro Pro Val Pro Gln
1 5

<210> 143
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 143
Ala Val Leu Pro Pro Val Pro
1 5

<210> 144
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:

swissnew/P07434/CGHB PAPAN

<400> 144

Ala Val Leu Pro Pro Val Pro Gln
1 5

<210> 145

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/Q28376/TSHB HORSE

<400> 145

Met Thr Arg Asp
1

<210> 146

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/Q28376/TSHB HORSE

<400> 146

Gln Asp Val Cys
1

<210> 147

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/Q28376/TSHB HORSE

<400> 147

Ile Pro Gly Cys
1

<210> 148

<211> 5

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9Z284/Q9Z284

<400> 148
Pro Ala Leu Pro Ser
1 5

<210> 149
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9UCG8/Q9UCG8

<400> 149
Leu Pro Gly Gly Pro Arg
1 5

<210> 150
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9UCG8/Q9UCG8

<400> 150
Leu Pro Gly Gly
1

<210> 151
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9UCG8/Q9UCG8

<400> 151
Gly Gly Pro Arg
1

<210> 152
<211> 4
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: XP_028754

<400> 152

Leu Gln Arg Gly
1

<210> 153

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: XP_028754

<400> 153

Leu Gln Arg Gly Val
1 5

<210> 154

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: XP_028754

<400> 154

Leu Gly Gln Leu
1

<210> 155

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SignalP (CBS)

<400> 155

Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro
1 5 10

<210> 156

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HLA molecule

type I (A_0201)

<400> 156

Val Leu Gln Gly Val Leu Pro Ala Leu
1 5

<210> 157

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 157

Gly Val Leu Pro Ala Leu Pro Gln Val
1 5

<210> 158

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 158

Val Leu Pro Ala Leu Pro Gln Val Val
1 5

<210> 159

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 159

Arg Leu Pro Gly Cys Pro Arg Gly Val
1 5

<210> 160

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 160

Thr Met Thr Arg Val Leu Gln Gly Val
1 5

<210> 161

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MHC II (H2-Ak
15-mers)

<400> 161

Cys Pro Thr Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu
1 5 10 15

<210> 162

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MHC II (H2-Ak
15-mers)

<400> 162

Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val
1 5 10 15

<210> 163

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HLA-DRB1*0101
15-mers

<400> 163

Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu Ser
1 5 10 15

<210> 164

<211> 15

<212> PRT

<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: HLA-DRB1*0101
 15-mers

<400> 164
 Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val
 1 5 10 15

<210> 165
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: HLA-DRB1*0101
 15-mers

<400> 165
 Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys Asn Tyr
 1 5 10 15

<210> 166
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: HLA-DRB1*0301
 (DR17) 15-mers

<400> 166
 Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val
 1 5 10 15

<210> 167
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: HLA-DRB1*0301
 (DR17) 15-mers

<400> 167
 Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val
 1 5 10 15

<210> 168
 <211> 7
 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-56
peptide

<400> 168

Val Ala Pro Ala Leu Pro Gln
1 5

<210> 169

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-62
peptide

<400> 169

Val Val Cys Asn Tyr Arg Asp Val Arg Phe Glu Ser Ile Arg Leu Pro
1 5 10 15

Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu
20 25 30

Ser Cys Gln
35

<210> 170

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-67
peptide

<400> 170

Cys Pro Arg Gly Val Asn Pro
1 5

<210> 171

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-70
peptide

<400> 171

Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln
1 5 10

<210> 172
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-75
peptide

<400> 172
Ser Lys Ala Pro Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly
1 5 10 15

Pro Cys

<210> 173
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-56
peptide

<400> 173
Val Ala Pro Ala Leu Pro Gln
1 5

<210> 174
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-71
peptide

<400> 174
Met Thr Arg Val Leu Pro Gly Val Leu Pro Ala Leu Pro Gln Val Val
1 5 10 15

Cys

<210> 175
<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF peptide

<400> 175

Cys Arg Gly Val Asn Pro Val Val Ser
1 5